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New Directions in Standard Terminology and Classifications for Primary Care

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SYNOPSIS

Three documents that considerably facilitate primary care research have been produced in recent

years. They are an international glossary of primary care health terms, an international classification of primary care health problems, and a primary care process classification. To describe the full spectrum of primary health care, however, additional classifications are needed that detail the reasons for encounters and indicate health status. Work on these several classifications is in progress and a set of primary care classifications has been proposed as a basis for the 10th revision of the International Classification of Diseases.

THE BIRTH OF FAMILY PRACTICE as a new specialty and the accompanying establishment of family medicine departments within medical schools produced a need both for definition of the content of the new specialty and for new knowledge within its several content areas. Complex biomedical research techniques have generally been either unavailable to family physicians or inapplicable to investigations in their areas of interest. Instead, family physicians have commonly used modified epidemiologic methods to measure the content of their daily practice.

Early investigators of the phenomena of ambulatory care encountered problems when they compared their work with that of others. For example, encounters, diagnoses, and patients were not always defined or tabulated as distinct and separate entities. Patients' age groups were often reported by decades rather than by the standard groupings used in census tabulations. A diagnostic classification with considerable specificity existed for recording organic diseases (1), but since this classification lacked the diagnostic titles necessary to enumerate symptoms and psychosocial problems, it was unsuitable for use in primary care.

To respond to these deficiencies, at least three valuable documents have been produced by standing and ad hoc committees of two major organizations.

1. "An International Glossary of Primary Care" (2) contains definitions of primary care research terms and their equivalents as used in different countries.
2. "The International Classification of Health Problems in Primary Care" (3) details those diagnostic titles used most frequently in family medicine settings.
3. The "NAPCRG-1A Process Code for Primary Care" (4) is a classification designed to record the details of primary care encounters.

The organizations responsible for these publications are the North American Primary Care Research Group (NAPCRG) and the World Organization of National Colleges, Academies, and Academic Associations of General Practitioners/Family Physicians (WONCA). The purpose of this paper is to assess the need for additional classifications for primary care and to detail the work in progress that addresses these needs.

If the full spectrum of the primary care encounter is to be studied, classifications will be required for (a) the reasons for the encounter, (b) the diagnoses, (c) the process, and (d) the patient's health status.

Classification of Reasons for Encounters

An early approach to classifying the reasons for encounters was the "symptom classification" (5) published by the National Center for Health Statistics, which was used to classify the reasons for encounters recorded during the 1973 National Ambulatory Care Survey (6). For the 1977-78 National Ambulatory Medical Care Survey, an expanded and modular classification was used (7). Currently a working party under the auspices of the World Health Organization, with representation from the WONCA Classification Committee and the National Center for Health Statistics, is field-testing, for use in primary care settings, a classification of the reasons for encounters. As currently constructed, there are 16 chapters in this classification relating to body systems, each with 7 components. The titles of these chapters follow:

- | | |
|-----------------------------------|--|
| A. General | P. Psychological |
| B. Blood and Blood-forming Organs | R. Respiratory |
| D. Digestive | S. Skin |
| E. Eye | T. Metabolic, Endocrine, and Nutritional |
| H. Ear | U. Urinary |
| K. Circulatory | X. Female Genital |
| L. Musculoskeletal | Y. Male Genital |
| N. Neurology | Z. Social |

Each chapter includes sections on symptoms and complaints, diagnostic screening and prevention, treatment procedures and medication, test results, administration, other reasons, and diagnoses-dis-

ease. After preliminary testing in The Netherlands, an international field trial of the classification was begun in early 1983 in eight countries. The classification provides a taxonomy for the reasons given by the patient for the encounter. The reasons that the patient gives are to be clarified by the physician but are not to be translated into diagnostic language.

The following principles guided the construction of the classification (8):

1. The content of the classification must be understood and agreed upon within the relationship between patient and provider, and the terms written down by the provider should be recognized by the patient as an acceptable description of the reason(s) for that contact with the care system.
2. The classification of the reasons for contacting the primary health care system must represent the starting point for an action or lack of action by the practitioner. The rubric(s) chosen must be the closest possible to the original statement(s) of the reason(s) by the patient, must represent the minimum possible transformation by the practitioner, warranted by the change from self-care, and must be agreed to by the patient.

Examples of the rubrics included in several chapters, along with their components, are given in the box.

Classification of Diagnoses

"The International Classification of Health Problems in Primary Care," 2d edition (ICHPPC-2), is designed to classify diagnoses made in the primary care setting. Produced by the WONCA classification committee, it is an official modification of the International Classification of Diseases—9th Revision (9) and is widely used in family practice set-

Examples of reason-for-encounter code numbers

Code No.	Rubric	Chapter	Component
A 20	General ill-feeling	A General	1—Symptoms and complaints
D 37	Diagnostic endoscopy	D Digestive	2—Diagnostic, screening, and preventive procedures
K 50	Medication for heart	K Circulatory	3—Treatment, procedures, and medication
L 60	Blood test	L Musculoskeletal	4—Test results
N 66	Physical examination required by third party	N Neurological	5—Administrative
P 68	Inadequate data base	P Psychological	6—Other reasons for contact
R 77	Tonsillitis, acute	R Respiratory	7—Diagnoses-Disease

tings. Concern with the need to standardize use of the diagnostic titles in the classification caused the WONCA committee to begin work on definitions, or rather on "specific inclusion criteria," for most of the diagnostic titles contained in the classification. (Specification of inclusion criteria for the rubrics designating residual categories was not possible because these rubrics contain several diagnoses). An example of inclusion criteria are the following for acute bronchitis:

Bronchitis, bronchiolitis, acute **incl.** bronchitis NOS:
tracheobronchitis

(Position No. 138, ICH PPC code **466-**, comparable ICD-9 codes 466, 490)

Inclusion in this rubric requires both of the following:

- (a) Cough
- (b) Scattered or generalized abnormal chest signs—wheeze, coarse or moist sounds

Note: Bronchiolitis in infants may present as dyspnea and obstructive emphysema without wheeze, moist sounds, fever, or sputum

Consider: (133, **460-**) Upper respiratory tract infection; (144, **493-**) Asthma; (269, **7860**) Wheezing; (270; **7862**) Cough

The inclusion criteria just cited, as well as the specific inclusion criteria for other diagnostic titles, are contained in a new publication entitled "ICHPPC-2-Defined" (10). This classification is not meant to be a textbook of medicine; rather it is designed to guide physicians who have already made a diagnosis, in coding the content of the diagnostic contact. If the listed inclusion criteria are not fulfilled, other diagnostic entities are suggested. Whenever possible, clinical criteria alone, without additional laboratory or X-ray confirmation, are provided. Diagnostic criteria produced by other specialty groups for specific rubrics were consulted and incorporated, as deemed appropriate by the classification committee. Work on this project began several years ago and culminated in an international field trial consisting of three separate projects. The first was a critical review of the proposed definitions or inclusion criteria by experienced clinicians; the second involved the coding of 76 clinical vignettes; the third required physicians to use the classification in their practices for at least 50 encounters. After the classification was tested in 12 countries, the modifications suggested by the participants and by the field trial data were incorporated into a final version. "ICHPPC-2-Defined" is an important addition to a growing family of classifications for primary care

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and will help to standardize the use of diagnostic titles.

Classification of Processes

The process code of the North American Primary Care Research Group (NAPCRG) was field-tested in the United States and published by NAPCRG in 1981. This classification has eight sections: Disposition; Preventive and supportive services; Procedures; Drugs and pharmaceuticals; Other diagnostic procedures; X-ray and ultrasound; Clinical laboratory; and Site and duration of service.

As with other classifications described in this paper, the process code is meant for use in primary care sites. Its design is hierarchical, proceeding from titles at a two-digit level of broad categories to entities at the four-digit level with considerable specificity. Attempts have been made to make the code compatible with other classifications that are even more specific, such as "Current Procedural Terminology," 4th revision (11). At the request of the ad hoc NAPCRG committee that produced and field-tested the classification, the WONCA classification committee has agreed to field-test an international version within the several countries represented by that organization.

Classification of Health Status

Although there is considerable interest in the measurement of health status, a standard classification for it that can be used in primary care is not yet available. If studies that relate outcome to medical interventions are to be facilitated, a method of ascertaining health status is needed. In the World Health Organization's recently published "International Classification of Impairments, Disabilities and Handicaps" (12), the following definitions are used:

Impairment: "an impairment is any loss or abnormality of psychological, physiological, or anatomic structure or function."

Disability: “a disability is any restriction or lack (resulting from an impairment) of ability to perform an activity in the manner or within the range considered normal for a human being.”

Handicap: “a handicap is a disadvantage for a given individual, resulting from an impairment or a disability, that limits or prevents the fulfillment of a role that is normal (depending on age, sex, and social and cultural factors) for that individual.”

This classification is an excellent beginning, but it is too cumbersome for use by primary care physicians. Future versions also will need to include an assessment of the quality of life as perceived by the patient. Considerable scholarly activity, however, is currently in progress relating to this subject. A detailed bibliography, published periodically as the “Clearinghouse on Health Indices,” is available from the National Center for Health Statistics (13). In addition, a special-interest group of the NAPCRG organization has recently been organized to produce a classification of health status suitable for use in the primary care setting.

Conclusions

All of the classifications I have discussed are for measuring the content of the primary encounter. They are designed to answer such questions as the following:

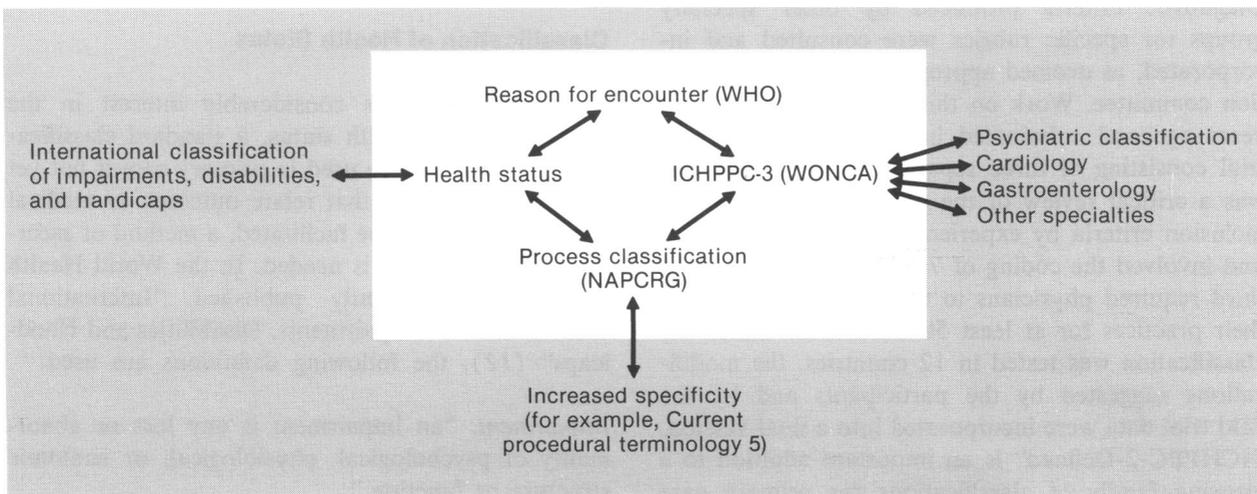
1. Why did the patient come to the physician?
2. What is the physician’s assessment of the health problems?
3. How did the physician handle these health problems?

4. What is the current health status of the patient?
5. Did the medical intervention change the health status of the patient?

If these several classifications are to function optimally, compatibility and optional hierarchy (10) are required. For example, disease categories listed within ICHPPC must be congruent with those in component 7 (Diagnoses-Disease) of the “Reason for encounter” classification. Terms chosen for health status assessment should be compatible with those used to describe the reasons for the encounter.

The primary care classifications discussed in this paper are designed to assess events that occur when people enter the health care system. They could form a rational basis for the next revision of the International Classification of Disease (ICD-10). For this to happen, they must be constructed so as to permit expansion for use by other specialty groups. A schema for an overall design is proposed in the chart.

It is apparent that we have only just begun to address the several problems involved in the construction of tools to facilitate research into the content of primary care. These tools must be simple enough to be used in the busy arena of the primary care health delivery site and yet be acceptable to the international community of physicians. Classifications should be hierarchical to permit expansion for the specificity required by the several specialty groups. Definitions need to be concise and categories mutually exclusive. The 1970s saw the creation of a new specialty, family medicine, which vigorously proceeded to establish undergraduate, graduate, and continuing education programs. Research tools were devised, and journals were established to report



primary care research. The task of the 1980s is to refine and expand some of these research tools, to facilitate collaboration between investigators, and to uncover new information about those areas that define this new specialty.

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Blood Pressure and Heart Rate Changes in Children When They Read Aloud in School

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SYNOPSIS

The 52 children in the study were recruited from two fifth grade classes in Baltimore city. The blood pressures and heart rates were recorded both at rest and while they read aloud in a classroom setting. A computerized monitoring system was used to measure blood pressures.

Rapid and highly significant increases in blood pressure and heart rate were observed when the children read aloud. A total of 84 measurements of 312 systolic and diastolic readings were not within the 95th percentile of normal pressure for the child's age and sex.